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Q: MCQ's.

Answer;

- 1) None of them
- 2) None of them
- 3) All of the above
- 4) 4.7 to 6.1 million per cell
- 5) Thrombocytopenia
- 6) Red bone marrow
- 7) Myeloid tissue
- 8) Polycythemia
- 9) Both A and B
- 10) None of them

Q no 1: Enlist characteristics of blood.

Answer;

Characteristics of blood:

- Blood play an important role in digestive and endocrine system. Blood carries different nutrients and hormones to all over the body.
- Blood transport oxygen to the lungs and carbon from lungs in the body.
- Blood also helps to maintain the body temperature and homeostasis.
- Blood brings waste products to kidney and liver and processes them for elimination.
- White blood cell protects the body from different harmful pathogens and platelets clots the blood.

Q no 2: Briefly explain hematopoiesis.

Answer; Hematopoiesis is the production of all the cellular components

Of blood and plasma or hematopoiesis is process through the body

Manufacture blood cells.

It occurs in with in the hematopoietic system, which includes organ, tissues

Such as bone marrow liver, spleen.

Hematopoiesis begins during the the first weeks of embryonic development.

SITES:

Fetus:0-2 months(yolk sac)
2-7 months (liver,spleen)
5-9 months (Bone marrow)

Infants:
Bone marrow(practically all bone)

Adults:Ribs, Starnum,skull, pelvis etc.

Q no 3: write down the comprehensive note on bone marrow.

Answer;

Definition;

Bone marrow is a spongy tissue located in hollow area of bone. Bone marrow is a rich nutrient tissue. It is located in long and flat bones like hip bone and sternum.

Type of bone marrow;

1) Red bone marrow:

It is also known as myeloid tissue.

All red blood cell and platelets are formed in red bone marrow.

Production of lymphocytes around 60- 70 % by red bone marrow.

It also play important role in obliteration of old red blood cell.

2) Yellow bone marrow:

The main purpose of yellow bone marrow is to act as store for fats and helping to provide environment for bone functions.

In several blood loss and other particular condition the yellow bone marrow may convert into red marrow.

Yellow bone marrow is located in central cavity of long bone and surrounded by a layer of red bone marrow.

Q no 4: Describe different sites of hematopoiesis in fetus , infants and adults.

Answer;

Different sites of hematopoiesis;

➤ **In fetus;**

In fetus the yolk sac is from 0 to 2 months.

Liver and spleen are from 2 to 7 months.

While the duration of bone marrow is from 5 to 9 months.

➤ **In infants;**

In infants all bone marrow are formed in all bones.

➤ **In adults;**

In adults skull, sacrum and pelvis, ribs and vertebrae etc.

{The end}

